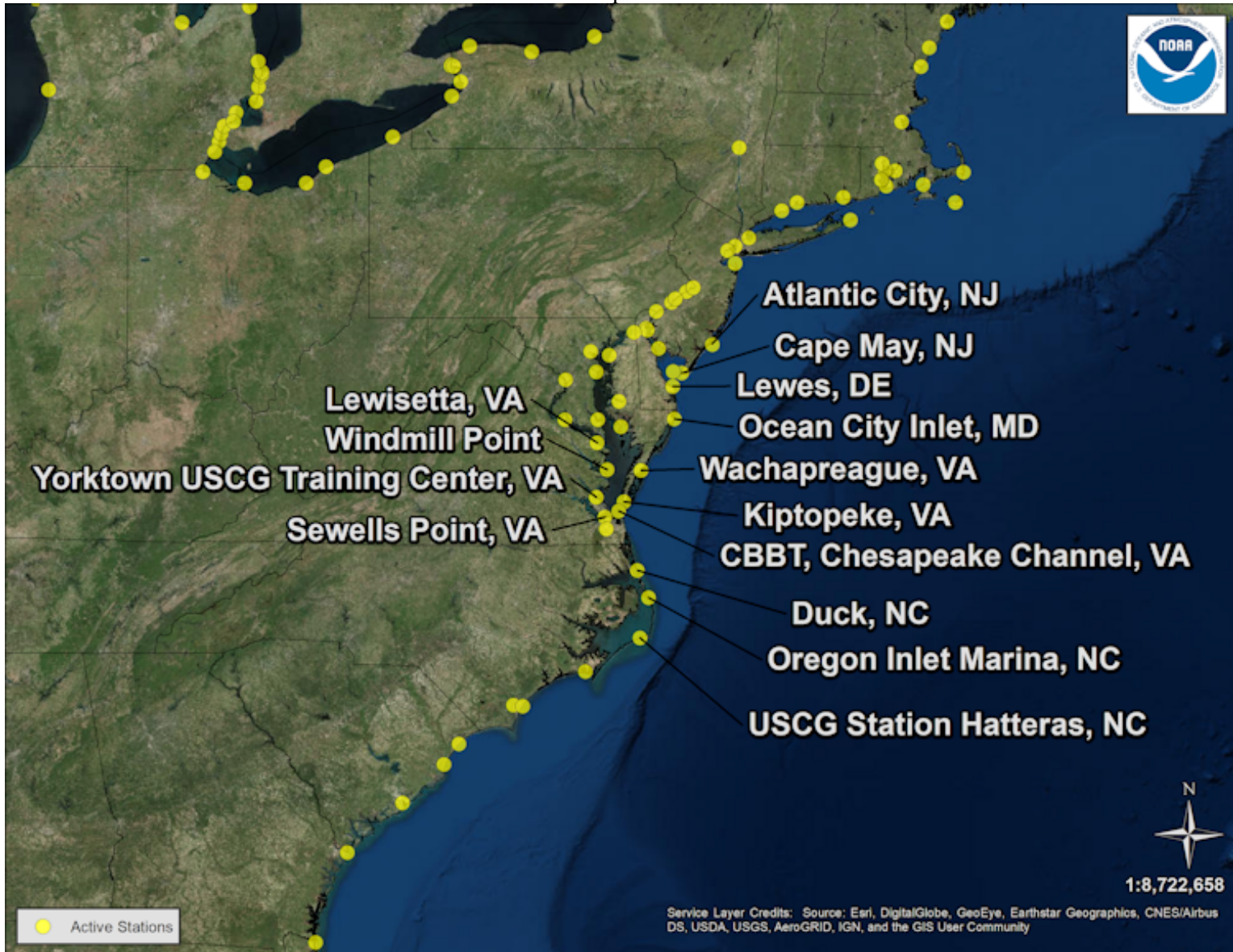




Post-tropical Cyclone Michael QuickLook
Posted: 06:00 EDT 10/12/2018

NOAA and NOAA Partnership Stations Relative to the Storm



Storm Analysis

Final QuickLook for Michael Issued

As of 10/12/2018 00:00 EDT, water levels along the Mid-Atlantic coast from northern North Carolina to southern New Jersey including southern Chesapeake Bay remain elevated by up to 2 feet above normal tide levels.

Winds along the coast are beginning to diminish at most stations but are still measuring 20-35 knots with higher gusts at many locations. Barometric pressure at all stations has begun to rise as the remnants of Michael pull away from the coast.

No further QuickLooks will be posted for this storm unless oceanographic conditions warrant and/or the [National Hurricane Center](#) (NHC) issues a new tropical storm or hurricane warning for the U.S. or its territories.

Water levels in bays and associated waterways may include impacts from hydrological forces, including rainfall runoff. For additional hydrological information see the [NWS Advanced Hydrologic Prediction Services](#) or your local [National Weather Service Forecast Office](#).

Water Level and Meteorological plots available below are updated automatically. A line denoting [Mean Higher High Water](#) (MHHW) is displayed to provide an approximate indication of when flooding inundation may occur.

For additional real-time and historical inundation information for select stations affected by this storm, please visit [Coastal Inundation Dashboard](#). For additional data, please see the [Center for Operational Oceanographic Products & Services](#) website.

For more information or archived products and reports, please visit the [Storm QuickLook](#) Homepage.

Analyst: PFF

Select [National Hurricane Center](#) Advisory:

Post-Tropical Cyclone Michael Advisory Number 23
NWS National Hurricane Center Miami FL AL142018
500 AM EDT Fri Oct 12 2018

...MICHAEL BECOMES A STORM-FORCE POST-TROPICAL LOW AS IT MOVES AWAY FROM THE UNITED STATES...

...ALL TROPICAL CYCLONE WARNINGS AND WATCHES DISCONTINUED...

SUMMARY OF 500 AM EDT...0900 UTC...INFORMATION

LOCATION...38.0N 73.1W
ABOUT 185 MI...300 KM ENE OF NORFOLK VIRGINIA
ABOUT 275 MI...445 KM SW OF NANTUCKET MASSACHUSETTS
MAXIMUM SUSTAINED WINDS...65 MPH...100 KM/H
PRESENT MOVEMENT...ENE OR 65 DEGREES AT 29 MPH...46 KM/H
MINIMUM CENTRAL PRESSURE...983 MB...29.03 INCHES

WATCHES AND WARNINGS

CHANGES WITH THIS ADVISORY:

All coastal tropical cyclone warnings and watches are discontinued.

SUMMARY OF WATCHES AND WARNINGS IN EFFECT:

There are no coastal watches or warnings in effect.

DISCUSSION AND OUTLOOK

At 500 AM EDT (0900 UTC), the center of Post-Tropical Cyclone Michael was located near latitude 38.0 North, longitude 73.1 West. The post-tropical cyclone is moving toward the east-northeast near 29 mph (46 km/h), and this motion is expected to continue with an increase in forward speed during the next couple of days. On the forecast track, the center of Michael will move away from the United States today and move rapidly across the open Atlantic Ocean tonight through Sunday.

Maximum sustained winds have increased near 65 mph (100 km/h) with higher gusts. Some additional strengthening is expected today and tonight as the post-tropical cyclone moves across the Atlantic.

Tropical-storm-force winds extend outward up to 275 miles (445 km) from the center. NOAA buoy 44014 recently reported sustained winds of 58 mph (94 km/h) and a wind gust of 72 mph (115 km/h).

The estimated minimum central pressure is 983 mb (29.03 inches).

HAZARDS AFFECTING LAND

STORM SURGE: Storm surge flooding along the North Carolina coast, including the Pamlico and Albemarle Sounds, should diminish today.

WIND: Gale winds may continue for a few more hours over portions of southeastern Virginia, the southern Chesapeake Bay, and the Delmarva Peninsula.

RAINFALL: Michael is expected to produce 1 to 3 inches of rain from New Jersey to Long Island to Cape Cod, and 3 to 5 inches over Nantucket and Martha's Vineyard through this afternoon. This rainfall could lead to flash flooding. Elsewhere, flooding and flash flooding may continue where Michael produced heavy rain very recently in the Carolinas and Mid-Atlantic states.

Rainfall totals of 1 to 3 inches are expected across the coastal northern Mid-Atlantic and southern New England.

NEXT ADVISORY

This is the last public advisory issued by the National Hurricane Center on this system. Additional information on this system can be found in High Seas Forecasts issued by the National Weather Service, under AWIPS header NFDHSFAT1, WMO header FZNT01 KWBC, and available on the Web at <https://ocean.weather.gov/shtml/NFDHSFAT1.shtml>. Additional information on the remaining impacts over the United States can be found in products issued by local National Weather Service forecast offices.

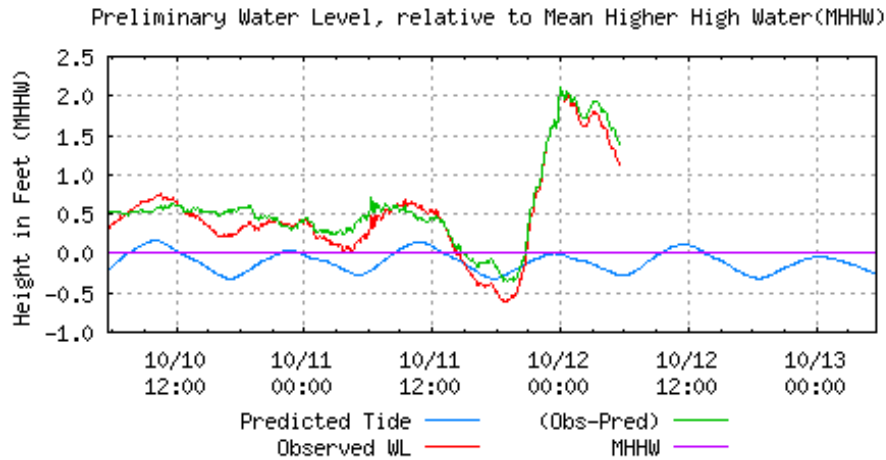
\$\$

Forecaster Beven

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.

Jump to: [USCG Station Hatteras - Water Level](#), [USCG Station Hatteras - Winds](#), [USCG Station Hatteras - Barometric](#), [Oregon Inlet Marina - Water Level](#), [Oregon Inlet Marina - Winds](#), [Oregon Inlet Marina - Barometric](#), [Duck - Water Level](#), [Duck - Winds](#), [CBBT, Chesapeake Channel - Water Level](#), [CBBT, Chesapeake Channel - Winds](#), [CBBT, Chesapeake Channel - Barometric](#), [Sewells Point - Water Level](#), [Yorktown USCG Training Center - Water Level](#), [Yorktown USCG Training Center - Winds](#), [Windmill Point - Water Level](#), [Lewisetta - Water Level](#), [Lewisetta - Winds](#), [Kiptopeke - Water Level](#), [Kiptopeke - Winds](#), [Wachapreague - Water Level](#), [Wachapreague - Winds](#), [Wachapreague - Barometric](#), [Ocean City Inlet - Water Level](#), [Ocean City Inlet - Winds](#), [Lewes - Water Level](#), [Lewes - Winds](#), [Cape May - Water Level](#), [Atlantic City - Water Level](#)

NOAA/NOS/CO-OPS 8654467 USCG Station Hatteras, NC



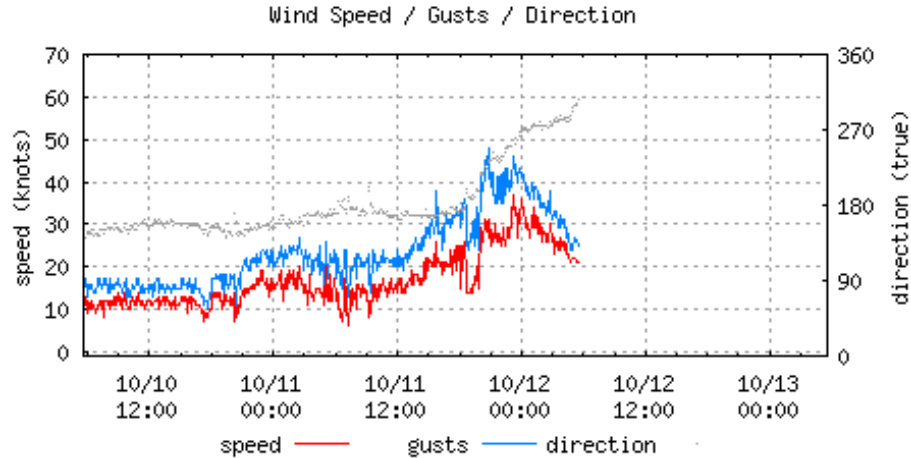
Last Observed Sample: 10/12/2018 05:36 (EDT). Data relative to MHHW

Observed: 1.12 ft. Predicted: -0.27 ft. Residual: 1.39 ft.

Historical Maximum Water Level: Oct 9 2016, 5.76 ft.

Next High Tide: 10/12/2018 11:33 (EDT), 0.11 ft.

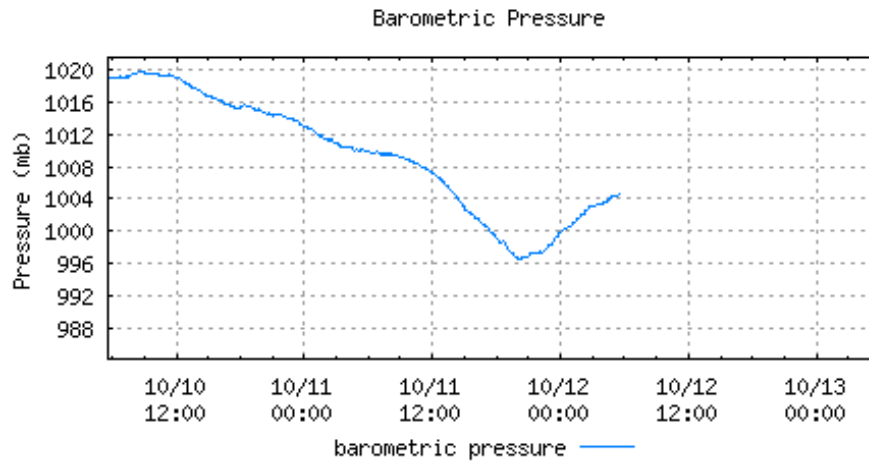
NOAA/NOS/CO-OPS 8654467 USCG Station Hatteras, NC



Last Observed Sample: 10/12/2018 05:36 (EDT)

Wind Speed: 22 knots Gusts: 25 knots Direction: 306° T

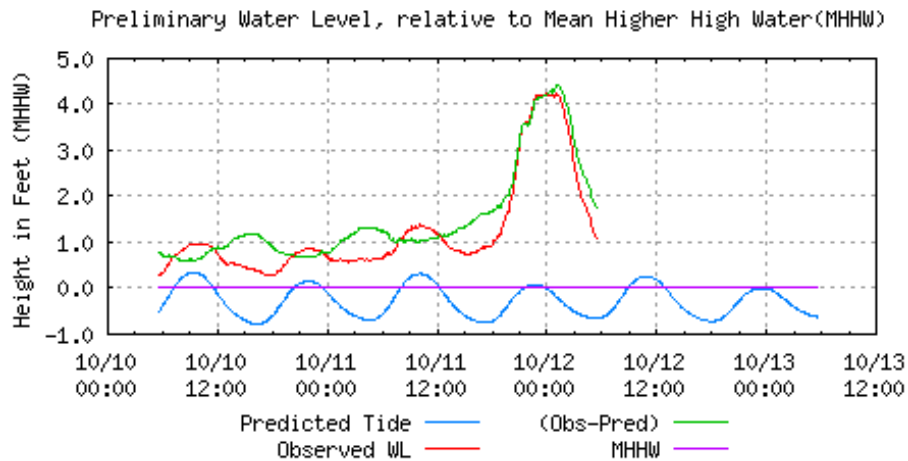
NOAA/NOS/CO-OPS 8654467 USCG Station Hatteras, NC



Last Observed Sample: 10/12/2018 05:36 (EDT)

Barometric Pressure: 1004.7 mb

NOAA/NOS/CO-OPS 8652587 Oregon Inlet Marina, NC



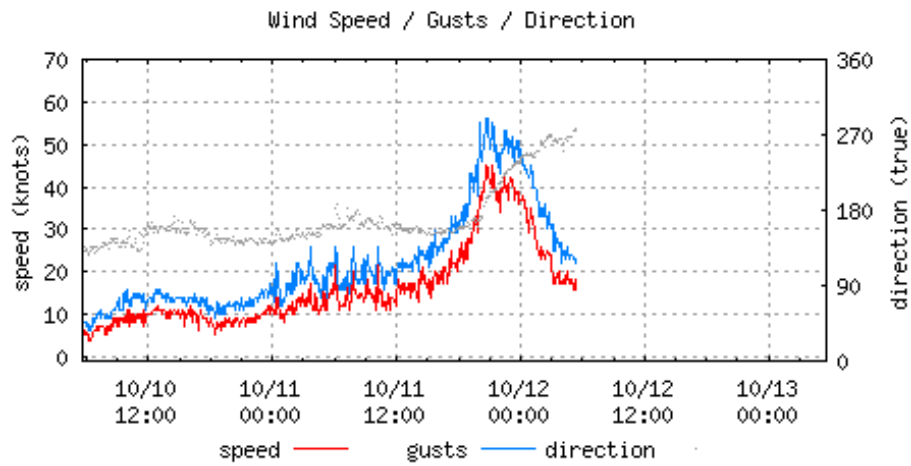
Last Observed Sample: 10/12/2018 05:24 (EDT). Data relative to MHHW

Observed: 1.10 ft. Predicted: -0.66 ft. Residual: 1.76 ft.

Historical Maximum Water Level: Aug 28 2011, 6.31 ft.

Next High Tide: 10/12/2018 10:52 (EDT), 0.26 ft.

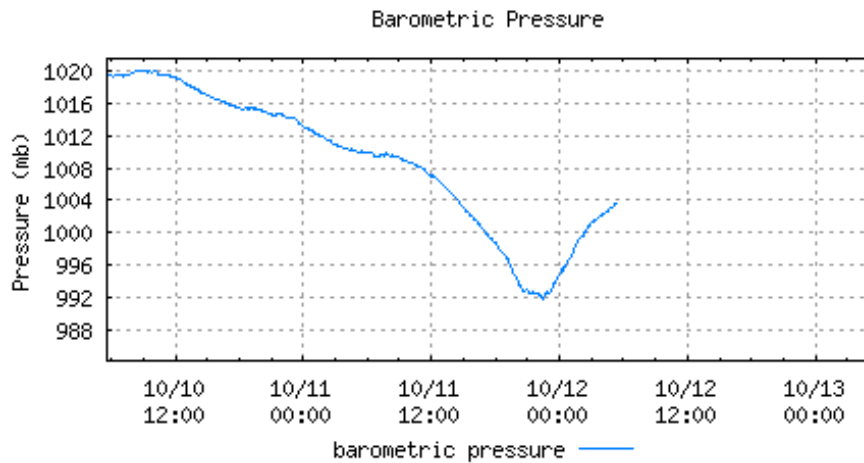
NOAA/NOS/CO-OPS 8652587 Oregon Inlet Marina, NC



Last Observed Sample: 10/12/2018 05:24 (EDT)

Wind Speed: 18 knots Gusts: 22 knots Direction: 278° T

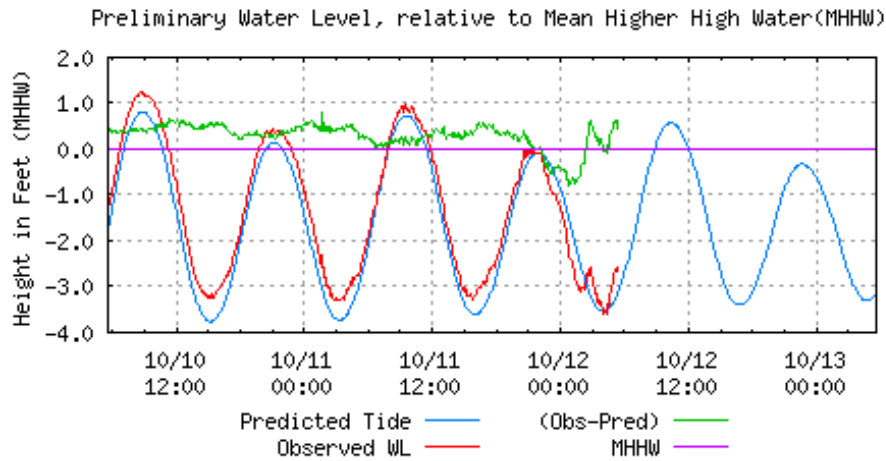
NOAA/NOS/CO-OPS 8652587 Oregon Inlet Marina, NC



Last Observed Sample: 10/12/2018 05:24 (EDT)

Barometric Pressure: 1003.6 mb

NOAA/NOS/CO-OPS 8651370 Duck, NC



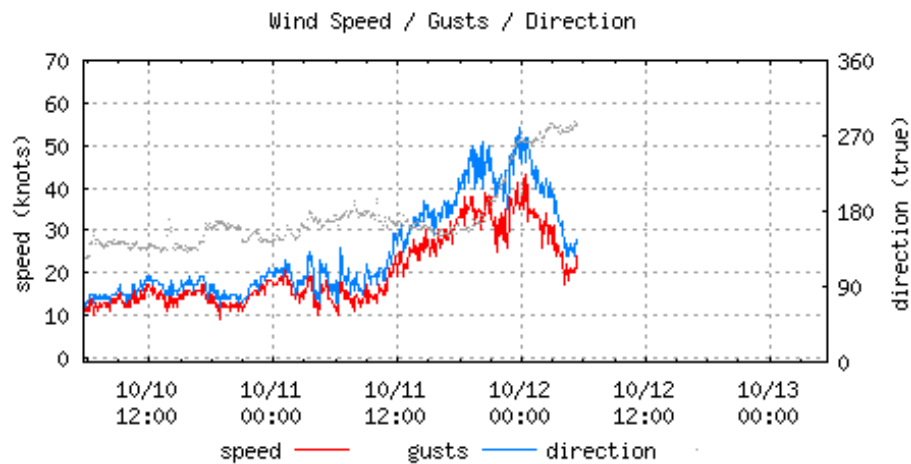
Last Observed Sample: 10/12/2018 05:30 (EDT). Data relative to MHHW

Observed: -2.50 ft. Predicted: -3.07 ft. Residual: 0.57 ft.

Historical Maximum Water Level: Sep 18 2003, 4.13 ft.

Next High Tide: 10/12/2018 10:20 (EDT), 0.57 ft.

NOAA/NOS/CO-OPS 8651370 Duck, NC

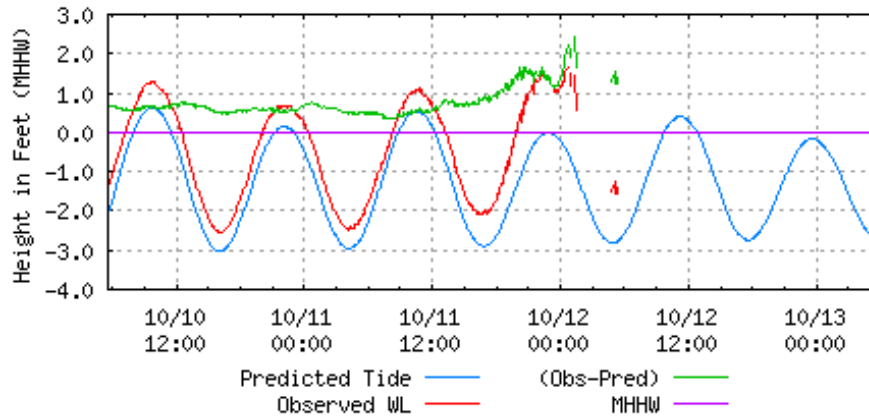


Last Observed Sample: 10/12/2018 05:30 (EDT)

Wind Speed: 17 knots Gusts: 26 knots Direction: 286° T

NOAA/NOS/CO-OPS 8638901 CBBT, Chesapeake Channel, VA

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 10/12/2018 05:24 (EDT). Data relative to MHHW

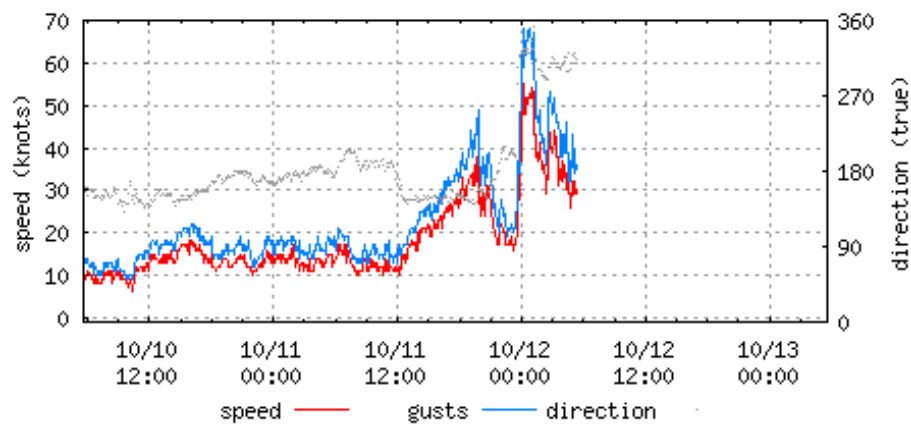
Observed: -1.38 ft. Predicted: -2.76 ft. Residual: 1.38 ft.

Historical Maximum Water Level: n/a

Next High Tide: 10/12/2018 11:13 (EDT), 0.40 ft.

NOAA/NOS/CO-OPS 8638901 CBBT, Chesapeake Channel, VA

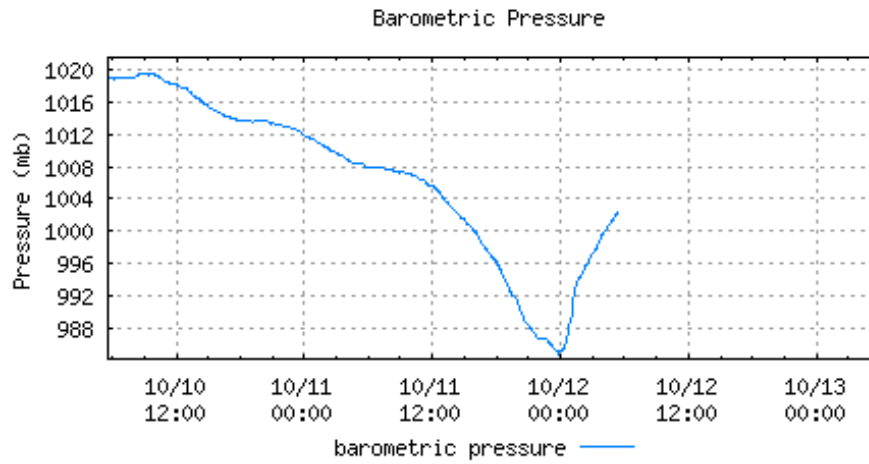
Wind Speed / Gusts / Direction



Last Observed Sample: 10/12/2018 05:24 (EDT)

Wind Speed: 30 knots Gusts: 36 knots Direction: 314° T

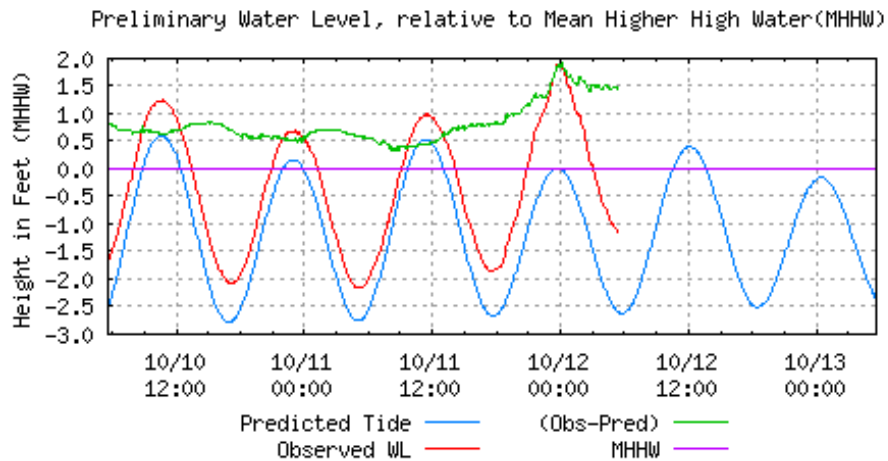
NOAA/NOS/CO-OPS 8638901 CBBT, Chesapeake Channel, VA



Last Observed Sample: 10/12/2018 05:24 (EDT)

Barometric Pressure: 1002.3 mb

NOAA/NOS/CO-OPS 8638610 Sewells Point, VA



Last Observed Sample: 10/12/2018 05:30 (EDT). Data relative to MHHW

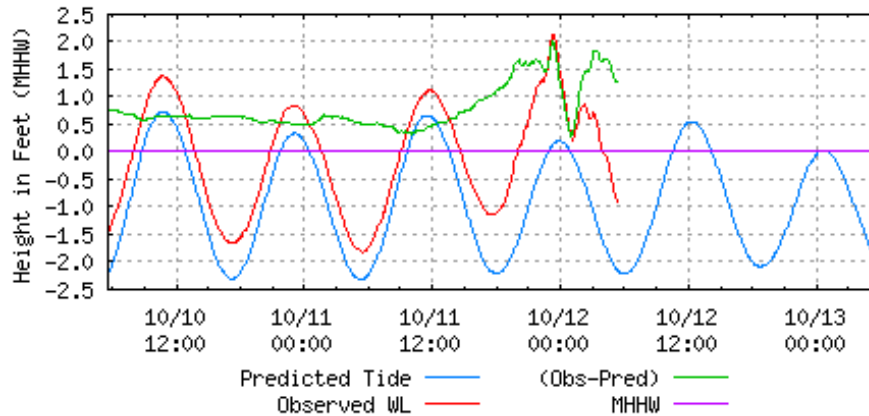
Observed: -1.19 ft. Predicted: -2.61 ft. Residual: 1.42 ft.

Historical Maximum Water Level: Aug 23 1933, 5.26 ft.

Next High Tide: 10/12/2018 12:07 (EDT), 0.40 ft.

NOAA/NOS/CO-OPS 8637689 Yorktown USCG Training Center, VA

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 10/12/2018 05:30 (EDT). Data relative to MHHW

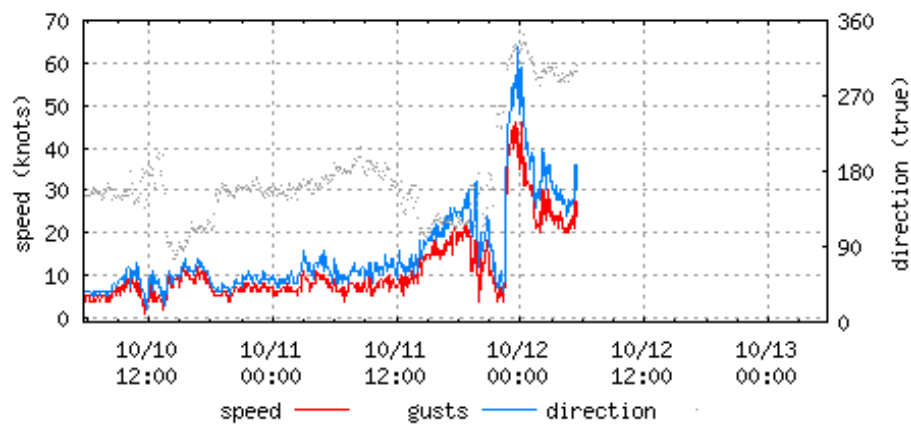
Observed: -0.90 ft. Predicted: -2.18 ft. Residual: 1.28 ft.

Historical Maximum Water Level: Nov 13 2009, 4.27 ft.

Next High Tide: 10/12/2018 12:17 (EDT), 0.55 ft.

NOAA/NOS/CO-OPS 8637689 Yorktown USCG Training Center, VA

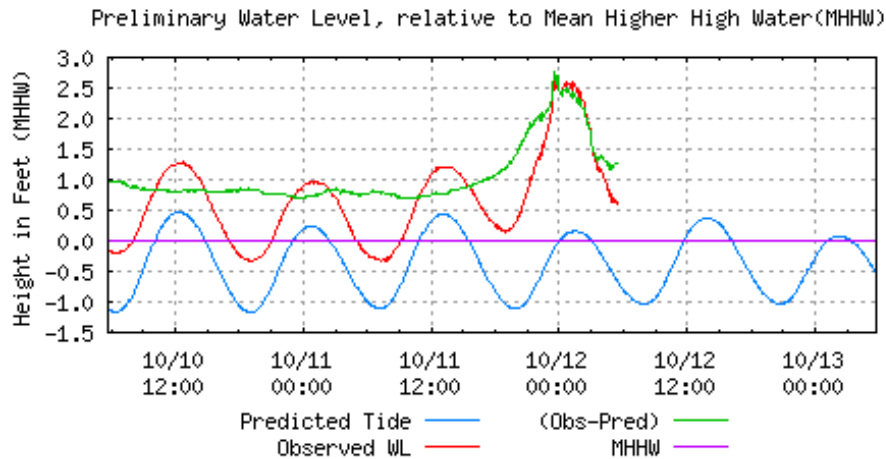
Wind Speed / Gusts / Direction



Last Observed Sample: 10/12/2018 05:30 (EDT)

Wind Speed: 24 knots Gusts: 30 knots Direction: 300° T

NOAA/NOS/CO-OPS 8636580 Windmill Point, VA



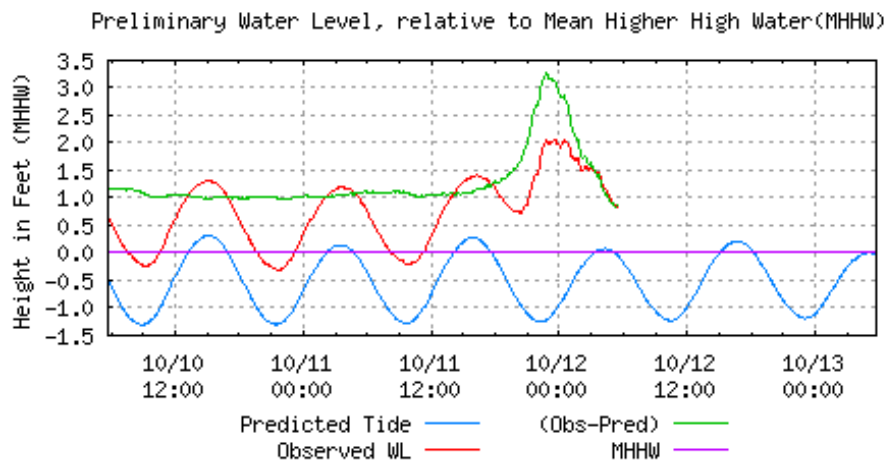
Last Observed Sample: 10/12/2018 05:30 (EDT). Data relative to MHHW

Observed: 0.60 ft. Predicted: -0.67 ft. Residual: 1.27 ft.

Historical Maximum Water Level: Sep 1 2006, 3.74 ft.

Next High Tide: 10/12/2018 13:50 (EDT), 0.37 ft.

NOAA/NOS/CO-OPS 8635750 Lewisetta, VA



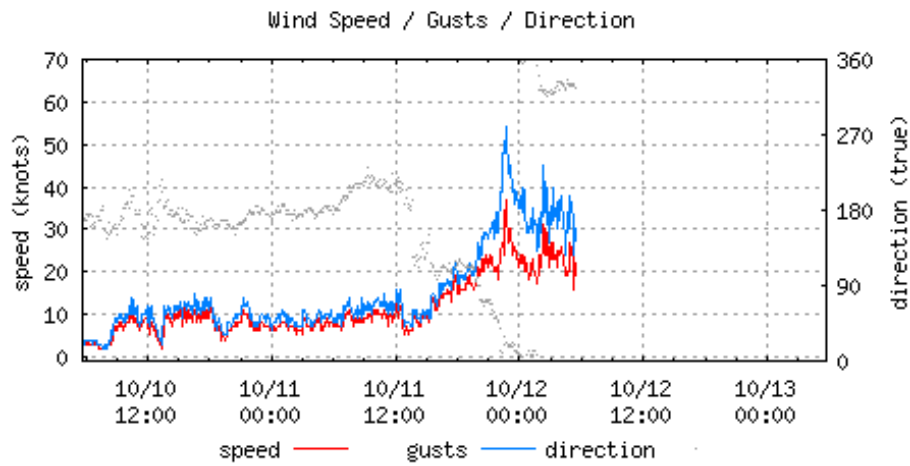
Last Observed Sample: 10/12/2018 05:24 (EDT). Data relative to MHHW

Observed: 0.83 ft. Predicted: -0.03 ft. Residual: 0.86 ft.

Historical Maximum Water Level: Sep 1 2006, 4.14 ft.

Next High Tide: 10/12/2018 16:41 (EDT), 0.21 ft.

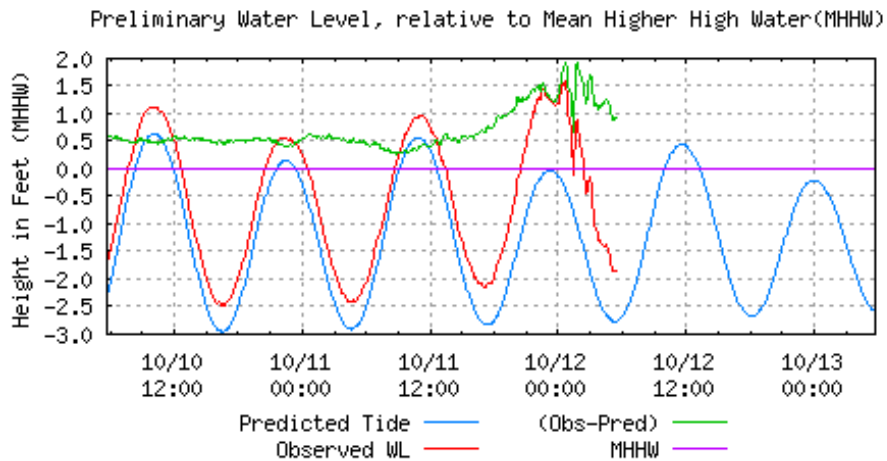
NOAA/NOS/CO-OPS 8635750 Lewisetta, VA



Last Observed Sample: 10/12/2018 05:24 (EDT)

Wind Speed: 22 knots Gusts: 30 knots Direction: 326° T

NOAA/NOS/CO-OPS 8632200 Kiptopeke, VA



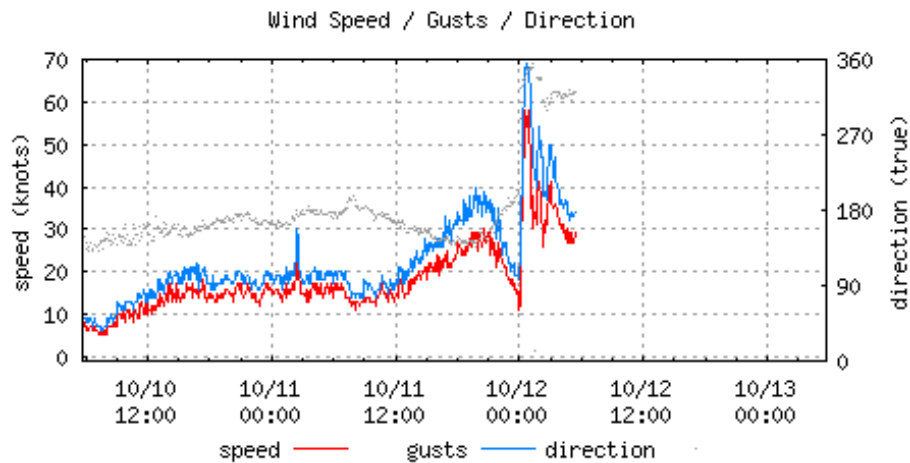
Last Observed Sample: 10/12/2018 05:30 (EDT). Data relative to MHHW

Observed: -1.78 ft. Predicted: -2.76 ft. Residual: 0.98 ft.

Historical Maximum Water Level: Mar 7 1962, 4.13 ft.

Next High Tide: 10/12/2018 11:34 (EDT), 0.45 ft.

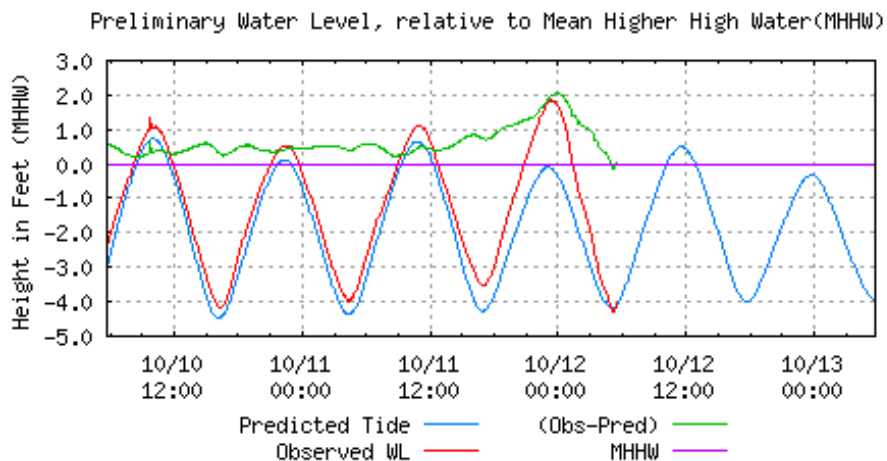
NOAA/NOS/CO-OPS 8632200 Kiptopeke, VA



Last Observed Sample: 10/12/2018 05:30 (EDT)

Wind Speed: 27 knots Gusts: 32 knots Direction: 318° T

NOAA/NOS/CO-OPS 8631044 Wachapreague, VA



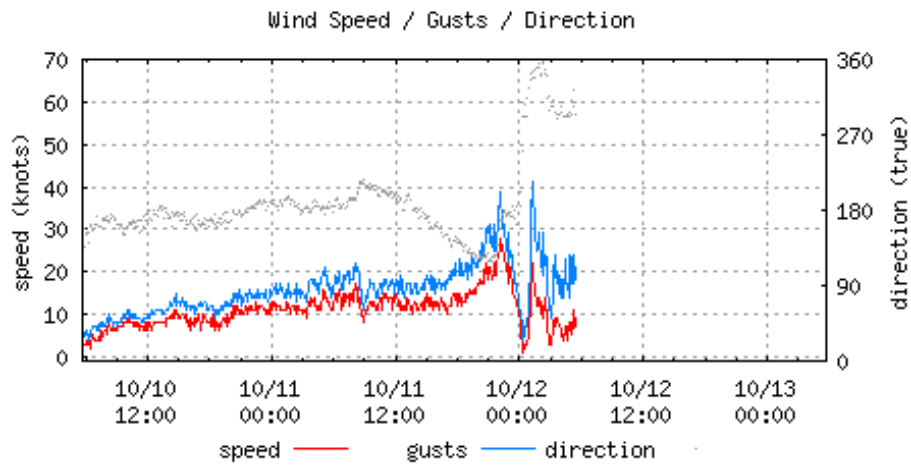
Last Observed Sample: 10/12/2018 05:30 (EDT). Data relative to MHHW

Observed: -4.06 ft. Predicted: -4.08 ft. Residual: 0.02 ft.

Historical Maximum Water Level: Feb 5 1998, 4.41 ft.

Next High Tide: 10/12/2018 11:31 (EDT), 0.50 ft.

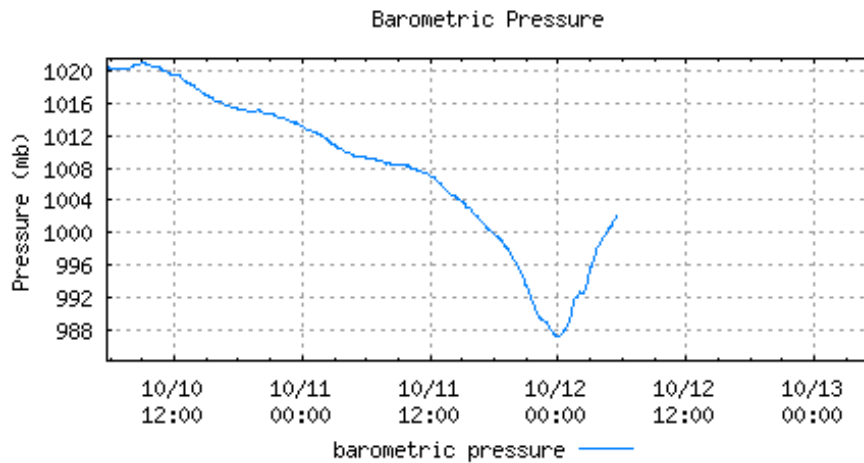
NOAA/NOS/CO-OPS 8631044 Wachapreague, VA



Last Observed Sample: 10/12/2018 05:30 (EDT)

Wind Speed: 8 knots Gusts: 20 knots Direction: 294° T

NOAA/NOS/CO-OPS 8631044 Wachapreague, VA

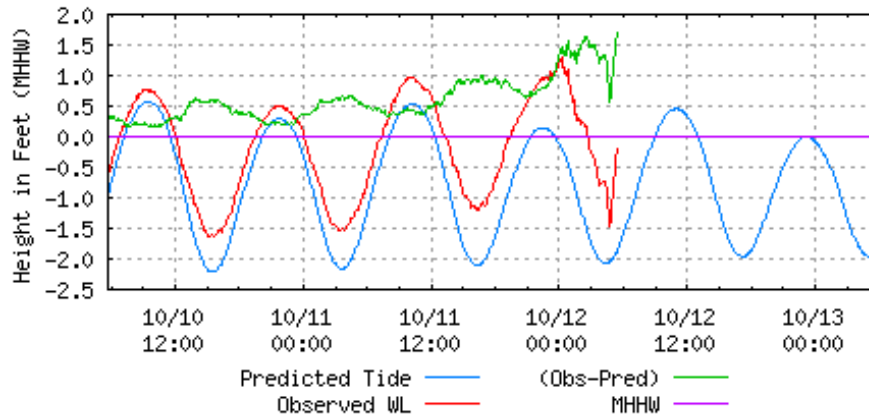


Last Observed Sample: 10/12/2018 05:30 (EDT)

Barometric Pressure: 1002.1 mb

NOAA/NOS/CO-OPS 8570283 Ocean City Inlet, MD

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 10/12/2018 05:30 (EDT). Data relative to MHHW

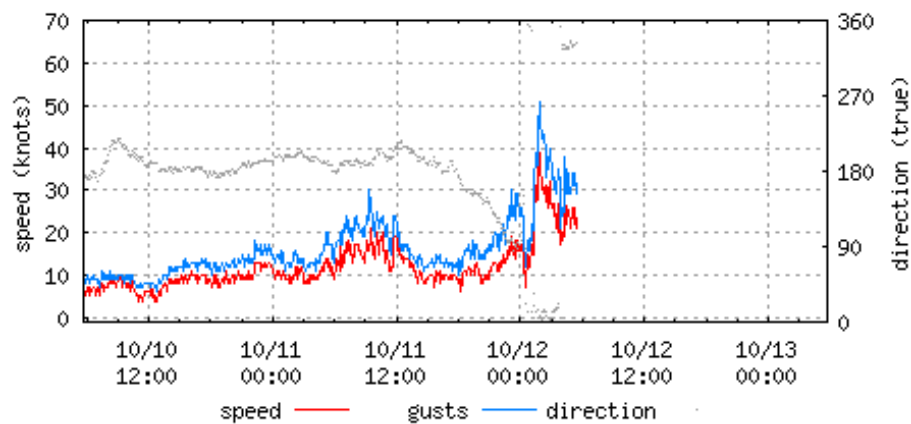
Observed: -0.04 ft. Predicted: -1.84 ft. Residual: 1.80 ft.

Historical Maximum Water Level: Feb 5 1998, 3.61 ft.

Next High Tide: 10/12/2018 10:56 (EDT), 0.46 ft.

NOAA/NOS/CO-OPS 8570283 Ocean City Inlet, MD

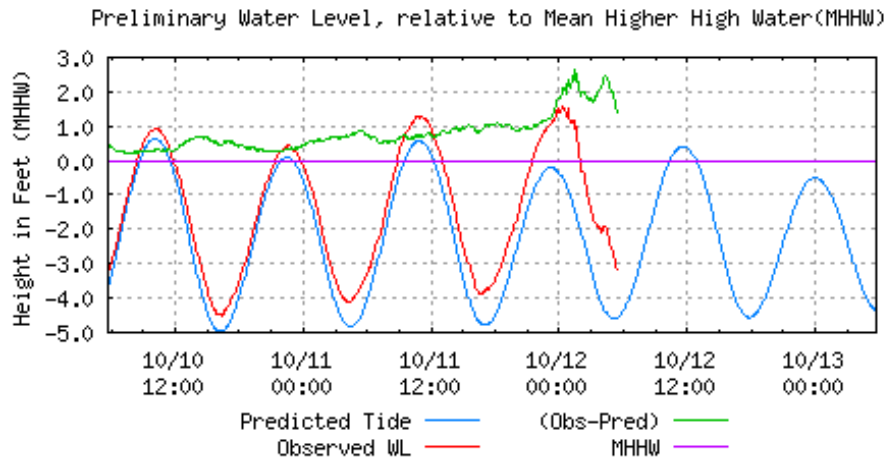
Wind Speed / Gusts / Direction



Last Observed Sample: 10/12/2018 05:30 (EDT)

Wind Speed: 25 knots Gusts: 32 knots Direction: 327° T

NOAA/NOS/CO-OPS 8557380 Lewes, DE



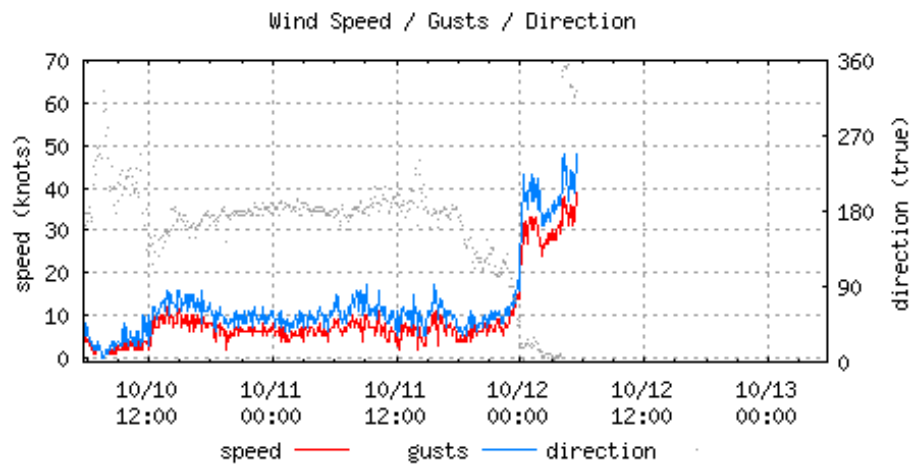
Last Observed Sample: 10/12/2018 05:30 (EDT). Data relative to MHHW

Observed: -3.18 ft. Predicted: -4.56 ft. Residual: 1.38 ft.

Historical Maximum Water Level: Jan 23 2016, 4.60 ft.

Next High Tide: 10/12/2018 11:34 (EDT), 0.42 ft.

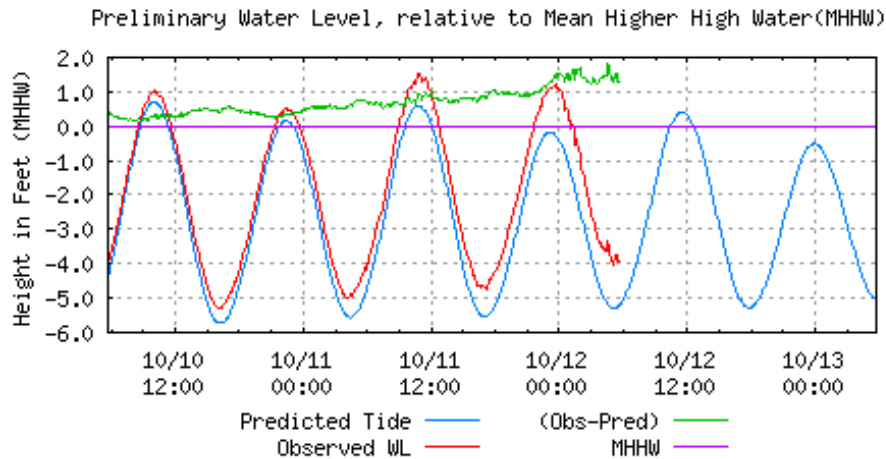
NOAA/NOS/CO-OPS 8557380 Lewes, DE



Last Observed Sample: 10/12/2018 05:30 (EDT)

Wind Speed: 39 knots Gusts: 48 knots Direction: 323° T

NOAA/NOS/CO-OPS 8536110 Cape May, NJ



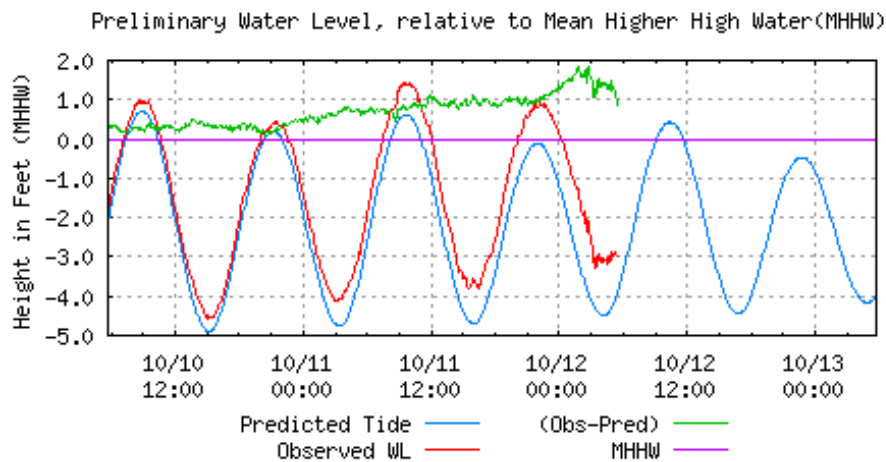
Last Observed Sample: 10/12/2018 05:36 (EDT). Data relative to MHHW

Observed: -3.92 ft. Predicted: -5.23 ft. Residual: 1.31 ft.

Historical Maximum Water Level: Jan 23 2016, 3.53 ft.

Next High Tide: 10/12/2018 11:30 (EDT), 0.41 ft.

NOAA/NOS/CO-OPS 8534720 Atlantic City, NJ



Last Observed Sample: 10/12/2018 05:30 (EDT). Data relative to MHHW

Observed: -3.00 ft. Predicted: -3.88 ft. Residual: 0.88 ft.

Historical Maximum Water Level: Dec 11 1992, 4.38 ft.

Next High Tide: 10/12/2018 10:22 (EDT), 0.42 ft.

Latest Water Level Observations on MHHW

Station ID	Station Name	Date/Time	Observed Water Level	Predicted Tide	Residual Water Level	24 Hour Maximum Storm Tide
8654467	USCG Station Hatteras, NC	10/12/2018 05:36 (EDT)	1.12 ft	-0.27 ft	1.39 ft	2.09 ft
8652587	Oregon Inlet Marina, NC	10/12/2018 05:24 (EDT)	1.10 ft	-0.66 ft	1.76 ft	4.24 ft
8651370	Duck, NC	10/12/2018 05:30 (EDT)	-2.50 ft	-3.07 ft	0.57 ft	0.98 ft
8638901	CBBT, Chesapeake Channel, VA	10/12/2018 05:24 (EDT)	-1.38 ft	-2.76 ft	1.38 ft	1.67 ft
8638610	Sewells Point, VA	10/12/2018 05:30 (EDT)	-1.19 ft	-2.61 ft	1.42 ft	1.92 ft
8637689	Yorktown USCG Training Center, VA	10/12/2018 05:30 (EDT)	-0.90 ft	-2.18 ft	1.28 ft	2.13 ft
8636580	Windmill Point, VA	10/12/2018 05:30 (EDT)	0.60 ft	-0.67 ft	1.27 ft	2.67 ft
8635750	Lewisetta, VA	10/12/2018 05:24 (EDT)	0.83 ft	-0.03 ft	0.86 ft	2.07 ft
8632200	Kiptopeke, VA	10/12/2018 05:30 (EDT)	-1.78 ft	-2.76 ft	0.98 ft	1.60 ft
8631044	Wachapreague, VA	10/12/2018 05:30 (EDT)	-4.06 ft	-4.08 ft	0.02 ft	1.85 ft
8570283	Ocean City Inlet, MD	10/12/2018 05:30 (EDT)	-0.04 ft	-1.84 ft	1.80 ft	1.30 ft
8557380	Lewes, DE	10/12/2018 05:30 (EDT)	-3.18 ft	-4.56 ft	1.38 ft	1.58 ft
8536110	Cape May, NJ	10/12/2018 05:36 (EDT)	-3.92 ft	-5.23 ft	1.31 ft	1.52 ft
8534720	Atlantic City, NJ	10/12/2018 05:30 (EDT)	-3.00 ft	-3.88 ft	0.88 ft	1.43 ft

Center for Operational Oceanographic Products & Services (CO-OPS) | National Ocean Service (NOS)
National Oceanic and Atmospheric Administration | U.S. Department of Commerce